

Abacus Topics – Autumn Term

Year 5	Year 6
Read, write, compare and order 5-digit numbers, understanding the place value and using < and > signs; add and subtract multiples of 10, 100 and 1000 to and from 5-digit numbers; use written addition to add two 4-digit numbers; sustain a line of enquiry; make and test a hypothesis	Read, write and compare 6-digit numbers and know what each digit represents; read, write and compare 1-, 2- and 3-place decimal numbers; multiply and divide by 10, 100 and 1000; round decimals to nearest tenth and whole number and place on a number line; convert decimals (up to 3 places) to fractions and vice-versa.
Add and subtract 2-digit numbers mentally; choose a strategy for solving mental additions or subtractions; solve word problems	Use mental addition strategies to solve additions including decimal numbers; use column addition to add 5-digit numbers, decimal numbers and amounts of money; solve problems involving number up to 3 decimal places, choose an appropriate method to solve decimal addition.
Understand place value in decimal numbers; multiply and divide numbers with up to two decimal places by 10 and 100; multiply and divide by 0 and 100; add and subtract 0.1 and 0.01; multiply and divide by 4 by doubling or halving twice; use mental multiplication strategies to multiply by 20, 25 and 9	Express missing number problems algebraically and find pairs of numbers that satisfy equations involving two unknowns; find missing lengths and angles; understand how brackets can be used in calculation problems; use knowledge of the order of operations to carry out calculations involving the four operations, solve addition and subtraction multi-step problems using knowledge of the order of operations.
Revise converting 12-hour clock times to 24-hour clock times; find a time a given number of minutes or hours and minutes later; calculate time intervals using 24-hour clock format; measure lengths in mm and convert to cm; find perimeters in cm and convert cm to m	Convert between grams and kilograms, millilitres and litres, millimetres and centimetres, centimetres and metres, metres and kilometres, and miles and kilometres; revise reading the 24-hour clock and convert 12-hour times to 24-hour; read and write Roman numerals; find time intervals using the 24-hour clock.
Solve subtraction using a written method for 3-digit – 3-digit numbers and for 4-digit numbers; use counting up (Frog) as a strategy to perform mental subtraction; find change from a multiple of ten pounds using counting up	Use mental addition, column subtraction and Counting up to solve subtractions of amounts of money and word problems; use mathematical reasoning to investigate.
Recognise which numbers are divisible by 2, 3, 4, 5, 6, 9 and 25 and identify multiples; find factors; recording results systematically and finding all factors of a given number; compare and place fractions on a line; find equivalent fractions and reduce them to their simplest form	Use mental multiplication strategies to multiply by numbers such as 4, 8, 5, 25, 19, 29 and 99; revise using short multiplication to multiply 4-digit numbers by 1-digit numbers and use this to multiply amounts of money; solve word problems involving multiplication including two-step problems and finding change; use long multiplication to multiply 3-digit and 4-digit numbers by teens numbers.
Use mental strategies to multiply and divide multiples of 10 and 100; use a written method to multiply 3-digit and 4-digit numbers by 1-digit numbers and estimate answers, divide 3-digit numbers by 1-digit numbers using a written method and express remainders as a fraction and solve division word problems	Understand negative numbers; calculate small differences between negative numbers and negative and positive numbers; add and subtract negative numbers; compare fractions with unlike, but related, denominators; correctly use the terms fraction, denominator and numerator; understand what improper fractions and mixed numbers are and add fractions with the same denominator, writing the answer as a mixed number
Use a protractor to measure and draw angles in degrees; recognise, use terms and classify angles as obtuse, acute and reflex; recognise that angles on a line total 180° and angles round a point total 360°; identify and name parts of a circle including diameter, radius and circumference; draw circles to a given radius using a pair of compasses; relate angles to turns, and recognise that a 360° angle is a complete turn; use angle facts to solve problems related to turn	Calculate the perimeter, area and volume of shapes, and know their units of measurement; understand that shapes can have the same perimeters but different areas and vice versa; calculate the area of a triangle using the formula $A = \frac{1}{2} b \times h$; find the area of parallelograms using the formula $A = b \times h$; name and describe properties of 3D shapes; systematically find and compare nets for different 3D shapes.
Place numbers to 100 000 and decimals up to two places on a line, round numbers to the nearest 10, 100 and 1000 and decimals up to two places to the nearest whole number; compare and order numbers with up to two decimal places; reduce fractions to their simplest form; know and recognise equivalent fractions and decimals to half, tenths and fifths	Use mental strategies to divide by 2, 4, 8, 5, 20 and 25; find non-unit fractions of amounts; use short division to divide 3- and 4-digit numbers by 1-digit numbers, including those which leave a remainder; express a remainder as a fraction, simplifying where possible.
Revise mental and written addition and subtraction strategies, choose to use a mental strategy or written method to solve addition and subtraction, choose to solve word problems involving multiplication and division questions including 2- and 3-digit by 1-digit and 2-digit by 2-digit using a mental or a written method, use mathematical reasoning to work out a function, identify the operation being used on numbers, understand that addition and subtraction are inverse operations multiplication and division, use function machines	Add and subtract unit fractions with different denominators including mixed numbers; use mental strategies to find simple percentages of amounts, including money
	Multiply fractions less than 1 by whole numbers, converting improper fractions to whole numbers; use commutativity to efficiently multiply fractions by whole numbers; divide unit and non-unit fractions by whole numbers; solve word problems involving fractions.

Hérons Years 5 and 6 Autumn Term 2016

Mrs Edwards with Mrs Sullivan (am) Mrs Gowing (pm)

Maths

Using the Abacus scheme as a basis, children will be working on the new National Curriculum. (See other side of this sheet for topics.) Half-termly tests.

RE

Question: What do Christians understand by reconciliation? Incl Yom Kippur-Jewish festival
Question: Do Muslims believe in Jesus?

English

Spelling, punctuation and grammar - daily practice.
Writing: Recount/Diary writing after trips. Use of classic Victorian novel: Alice in Wonderland by Lewis Carroll will provide opportunities to practise dialogue writing, descriptive setting, character and creative story writing.
Reading: daily activities including independent and guided reading sessions with an adult twice a week.
Speaking and Listening: Theatre project, Victorian experience day in role. Debate: changes in land-use.

Science (first half term)

Using toys, we will investigate forces to learn that: Gravity acts between objects. How forces may be opposed by air and water resistance and friction.
Using bikes: Mechanisms such as levers, pulleys and gears allow a smaller force to have a greater effect.

2nd half term Geography

Change in land use in local area- mapping skills- future land use

TOYS

PE

Thursdays Mr Ward net and wall -invasion games

Computing:

Researching using the internet- reliability and safety.
Programming lego robots.

Art and Design, Music:

Norfolk Theatre Royal Project- creating our own version of Madame Butterfly , performing with Neatishead and Little Plumstead schools.

Art : surrealism link to Alice in Wonderland

Design technology- moving scene using "cam" mechanism.

History:

Victorian childhood in Norfolk: **Gressenhall visit**
Victorian Experience Day 16 September.
Also Using photos/census/maps of Salhouse

PSHE(Personal, social, health education)
Paddy Venner (coach from Aciv8 life-skills) 7 sessions start 29th September. Forest School Fridays -please bring old clothes and WATERPROOFS.

Spanish

Speaking and writing phrases. Developing conversation skills.

Important Dates:

Victorian Day 16th September.
Backstage tour Theatre Royal 30th Sept.
Children required all day Sun 6th Nov for rehearsal then performance at Theatre Royal 2.30pm.

Home learning

'Big Talk' in preparation for "Big Write" on Tues. (set alternate Fri/Mon before)
Spelling sheet on Monday - part of our whole school plan. Tested Friday.
Maths on Friday - either written or online at activelearnprimary.co.uk.
Please continue to encourage reading at home and practise fast recall of times tables, number bonds and telling the time.